

Kansas Department of Health and Environment
Proposed Amended Regulation

Article 35. Radiation

Part 7. Special Requirements for Industrial Radiographic Operations

28-35-289. Training requirements. (a) The licensee or registrant shall not permit any individual to act as a radiographer until the individual has completed ~~either~~ both of the following:

(1) At least 40 hours of training in the subjects specified in subsection (g) of this regulation; and

(2) one of the following types of on-the-job training consisting of hands-on experience under the supervision of a radiographer and certification through a radiographer certification program by a certifying entity as specified in K.A.R. ~~28-35-292; and 28-35-293;~~

~~(3)~~(A) If the individual will be performing industrial radiography utilizing radioactive material, on-the-job training that includes at least two months or 320 hours of active participation in the performance of industrial radiography utilizing radioactive material;

(B) if the individual will be performing industrial radiography utilizing radiation machines, on-the-job training that includes at least one month or 160 hours of active participation in the performance of industrial radiography utilizing radiation machines; or

(C) if the individual will be performing industrial radiography utilizing radioactive material and radiation machines, both segments of the on-the-job training specified in paragraphs ~~(a)(1)(C)(i) and (ii)~~ (a)(2)(A) and (B).

(b) The licensee or registrant shall not permit any individual to act as a radiographer until the individual meets the following requirements:

- (1) Has received the following:
 - (A) A copy of and instruction in the requirements contained in this part;
 - (B) a copy of the applicable portions of parts 4 and 10 of these regulations;
 - (C) the license or registration under which the radiographer will perform industrial radiography; and
 - (D) a copy of the licensee's or registrant's operating and emergency procedures;
- (2) has demonstrated an understanding of the material listed in paragraphs (b)(1)(A) through (D) by successful completion of a written or oral examination;
- (3) has received training in the use of the registrant's radiation machines, or the licensee's radiographic exposure services and sealed sources, in the daily inspection of devices and associated equipment and in the use of radiation survey instruments; and
- (4) has demonstrated an understanding of the use of the equipment specified in paragraph (b)(3) by successful completion of a practical examination.

(c) The licensee or registrant shall not permit any individual to act as a radiographer's assistant until the individual meets the following requirements:

- (1) Has received the following:
 - (A) A copy of and instruction in the requirements contained in this part;
 - (B) a copy of the applicable portions of parts 4 and 10 of these regulations;
 - (C) the license or registration under which the radiographer's assistant will perform industrial radiography; and
 - (D) a copy of the licensee's or registrant's operating and emergency procedures;

(2) has demonstrated an understanding of the material listed in paragraphs (c)(1) (A) through (D) by successful completion of a written or oral examination;

(3) under the personal supervision of a radiographer, has received training in the use of the registrant's radiation machines, or the licensee's radiographic exposure devices and sealed sources, in the daily inspection of devices and associated equipment and in the use of radiation survey instruments; and

(4) has demonstrated an understanding of the use of the equipment specified in paragraph (c)(3) by successful completion of a practical examination.

(d) Each radiographer and radiographer's assistant shall receive the annual refresher safety training at least every 12 months.

(e) The radiation safety officer or designee shall conduct an inspection program of the job performance of each radiographer and radiographer's assistant to ensure that the department's regulations, the license or registration requirements, and the operating and emergency procedures are followed. Alternatives may be considered by the secretary if the individual serves as both radiographer and radiation safety officer. In those operations in which a single individual serves as both radiographer and radiation safety officer and performs all radiography operations, an inspection program shall not be required. The inspection program shall include the following:

(1) Observation of the performance of each radiographer and radiographer's assistant during an actual industrial radiographic operation, at least every six months; and

(2) a provision that, if a radiographer or a radiographer's assistant has not participated in an industrial radiographic operation for more than six months since the last inspection, the radiographer shall demonstrate knowledge of the training

requirements of paragraph (b)(3) and the radiographer's assistant shall demonstrate knowledge of the training requirements of paragraph (c)(3) by a practical examination before these individuals are allowed to participate in a radiographic operation.

(f) Each licensee or registrant shall maintain the following:

(1) Records of the training of each radiographer and radiographer's assistant.

These records shall include radiographer certification documents and verification of certification status, copies of written tests, dates of oral and practical examinations, the names of individuals conducting and receiving the oral and practical examinations, a list of the subjects tested, and the results of the oral and practical examinations; and

(2) records of annual refresher safety training and semiannual inspections of job performance for each radiographer and each radiographer's assistant. These records shall list the topics discussed during the refresher safety training, the date or dates on which the annual refresher safety training was conducted, and the names of the instructors and attendees. For inspections of job performance, the records shall also include a list showing the items checked and any noncompliance observed by the radiation safety officer.

(g) The training of each licensee or registrant shall include information about the following:

(1) Fundamentals of radiation safety, including the following:

(A) The characteristics of gamma radiation and X-radiation;

(B) the units of radiation dose and activity;

(C) the hazards of exposure to radiation;

(D) the levels of radiation from different sources of radiation; and

- (E) the methods of controlling radiation dose using time, distance, and shielding;
- (2) radiation detection instruments, including the following:
 - (A) The use, operation, calibration, and limitations of radiation survey instruments;
 - (B) survey techniques; and
 - (C) the use of personnel-monitoring equipment;
- (3) the equipment to be used, including the following:
 - (A) The operation and control of radiographic exposure equipment, remote ~~handling~~ handling equipment, and storage containers, including pictures or models of source assemblies;
 - (B) the operation and control of radiation machines;
 - (C) the storage, control, and disposal of sources of radiation; and
 - (D) inspection and maintenance of equipment;
- (4) the requirements of state and federal regulations; and
- (5) case histories of accidents in radiography. (Authorized by and implementing K.S.A. 48-1607; effective Jan. 1, 1970; amended May 1, 1976; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985; amended Dec. 30, 2005; amended P-
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